NORTEL

Nortel Communication Server 1000

IP Phone 1110

User Guide

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Revision history

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About the Nortel IP Phone 1110

The Nortel IP Phone 1110 brings voice and data to the desktop by connecting directly to a Local Area Network (LAN) through an Ethernet connection.

Basic features

Your IP Phone 1110 supports the following:

- four context-sensitive soft keys providing access to a maximum of 10 features

  For information about context-sensitive soft keys, see *New in This Release Communication Server 1000 Release 5.0* (NN43001-115).

  Context-sensitive soft keys are Nortel Communication Server dependent. Some IP Phone 1110 phones are not configured to support context-sensitive soft key functionality. Contact your site administrator for further details
- pixel-based LCD screen, backlit, with adjustable contrast
- speaker for on-hook listening and on-hook dialing
- volume control keys for adjusting ringer, speaker, and handset volume
- three call-processing fixed keys:
  - Line
  - Hold
  - Goodbye
- three specialized feature keys:
  - Message/Inbox
  - Services
  - Expand
- integrated 10/100 Ethernet switch for shared PC access
- automatic network configuration

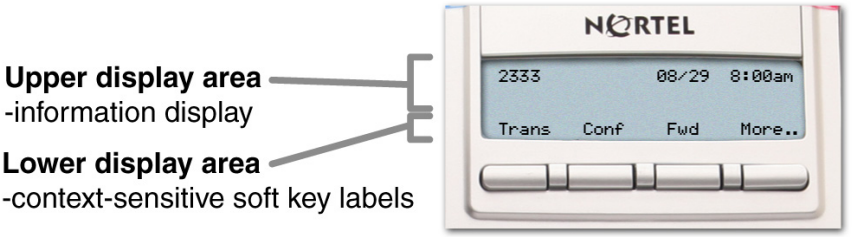
- hearing aid compatibility

  Note: Some features are not available on all telephones. Consult your system administrator to verify which features are available for your use.

Telephone display

Figure 1 shows the LCD screen of your IP Phone 1110.

Figure 1: IP Phone 1110 LCD screen



The LCD screen on your IP Phone 1110 consists of two basic display areas:

- The upper display area is for information such as caller number, caller name, feature prompt string, user-entered digits, date and time (or call timer, if provisioned in the Telephone Options menu), and telephone information.
- The lower display area is for context-sensitive soft key labels.

Telephone controls

Figure 2 shows the controls of your IP Phone 1110.

Figure 2: IP Phone 1110

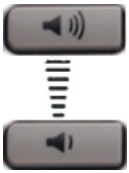
*Note: If supported by your server, the Feature Status Lamp provides a user-defined alert. Contact your system administrator to find out if this feature is available for you.

Note: In some geographic regions, the IP Phone 1110 is offered with key caps that have English text labels. Text in parentheses indicates labels appearing on the key caps, for example, (Services).

Context-sensitive soft keys are located below the LCD display area. The LCD label above each context-sensitive soft key changes based on the call state or active feature.

When a triangle appears before a context-sensitive soft key label, the feature associated with the context-sensitive soft key is active.

Press the **More** key to access the next layer of context-sensitive soft keys.



Use the **Volume control** buttons to adjust the volume of the ringer, handset and speaker. Press the top button to increase the volume, and press the bottom button to decrease volume.

Use the **Navigation** keys to scroll through menus and lists appearing on the LCD display screen. The outer part of this key cluster rocks for up, down, left, and right movements.

Press the **Enter** key, at the center of the Navigation key cluster, to confirm menu selections.

In many cases, you can use the **Enter** key instead of the **Select** context-sensitive soft key.

(Line)

Use the **Line (DN)** key to access the single line and activate on-hook dialing. No status icon or LED is provided.

(Hold)

Press the **Hold** key to put an active call on hold. Press the **Hold** key again to return to the caller on hold.

(Expand)

Use the **Expand** key to access external server applications.

(Goodbye)

Use the **Goodbye** key to terminate an active call.

When a message is waiting, the red **Visual Alerter/Message Waiting** indicator flashes. Also, when the ringer sounds, this indicator flashes.

When your IP Phone 1110 firmware is being updated, the blue **Feature Status Lamp** flashes.

Note: To find out if additional features are supported, contact your administrator.

(Services)

Press the **Services** key once to access the following server-based options:

- Telephone Options:
  - — Volume adjustment...
  - — Contrast adjustment
  - — Language...
  - — Date/Time...
  - — Local Dialpad Tone
  - — Set Info
  - — Diagnostics
  - — Ring type...
  - — Call timer
  - — Live Dial Pad
- Password Admin:
  - — Station Control Password

  Note: The **Password Admin** menu may not be available on all IP Phone 1110 sets. Consult your system administrator.
- Virtual Office Login and Virtual Office Logout (if Virtual Office is configured)
- Test Local Mode and Resume Local Mode (if Media Gateway 1000B is configured)

  Note: Press the **Services** key to exit from any menu or menu item.

(Services)

(Services)

Press the **Services** key twice to access the following telephone-based (local) options:

- 1. Preferences
- 2. Local Diagnostics
- 3. Network Configuration
- 4. Lock Menu

Note 1: Access to these local options can be password protected. If you press the **Services** key twice and a password prompt appears, contact your system administrator.

Note 2: Press the **Cancel** context-sensitive soft key to exit from any menu or menu item.

(Msg/Inbox)

Press the **Message/Inbox** key to access your voice mailbox.

Note: This function may not be available on all IP Phone 1110s; consult your system administrator.

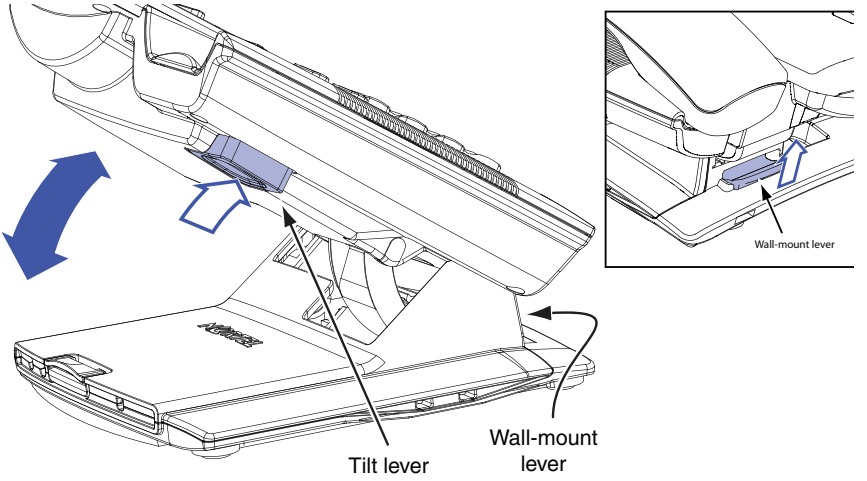
Connect the components

Before you begin

CAUTION
Damage to Equipment
Do not plug your IP Phone 1110 into a regular or ISDN telephone jack. This results in severe damage to the IP Phone. Consult your system administrator to ensure that you plug your phone into a 10/100BaseT Ethernet jack.

CAUTION
Your IP Phone 1110 is designed for use in an indoor environment only.

Figure 3: Release the phone from the stand

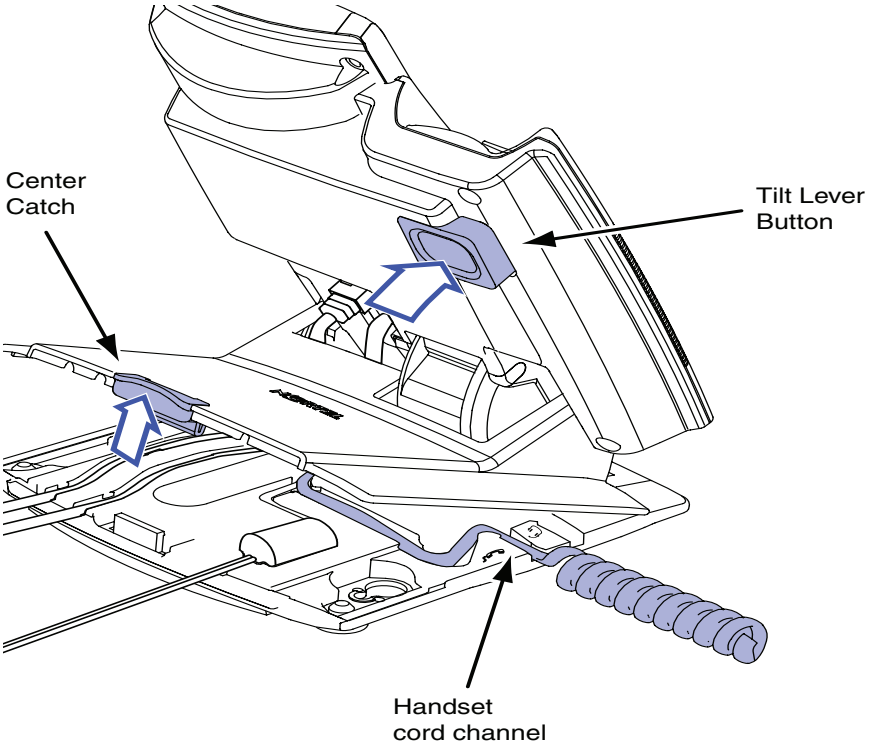


WARNING Your IP Phone 1110 is shipped with its stand locked in position. To release the phone from the stand, press the Wall-Mount lever (see **Figure 3**) and gently rotate the phone away from the stand a little. When you're sure the phone is released from the stand, press the Tilt lever and fully rotate the phone away from the stand.

Use the following steps to connect the components of your phone.

1. **Remove the stand cover**. Pull upward on the center catch (see **Figure 4)** and remove the stand cover from the stand base. The cable routing tracks are now accessible in the stand base (see **Figure 5**).

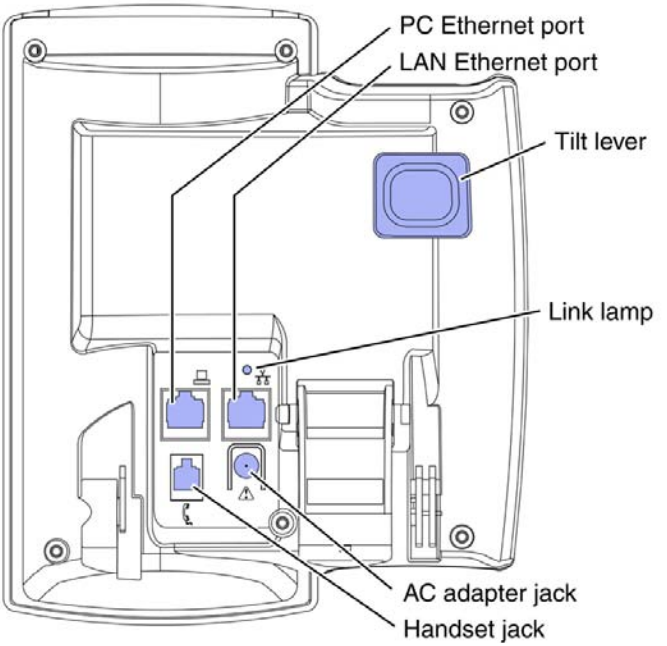
Figure 4: Remove the stand cover



2. **Connect the AC power adapter (optional).** Connect the AC power adapter (not supplied) to the AC adapter jack in the bottom of the phone (see **Figure 5**). Form a small bend in the cable, and then thread the adapter cord through the channel in the stand base. Plug the AC power adapter into the nearest AC power outlet.

   Note: Your IP Phone 1110 supports both AC power and Power over Ethernet (PoE), including IEEE 802.3af standard power. To use AC power, use only the Nortel-approved AC power adapter (RoHS Global Power Supply, PEC #: N0089601), which can be ordered separately. To use Power over Ethernet (PoE) power, your connected LAN must support PoE; an AC power adapter is not required.

Figure 5: IP Phone 1110 connections

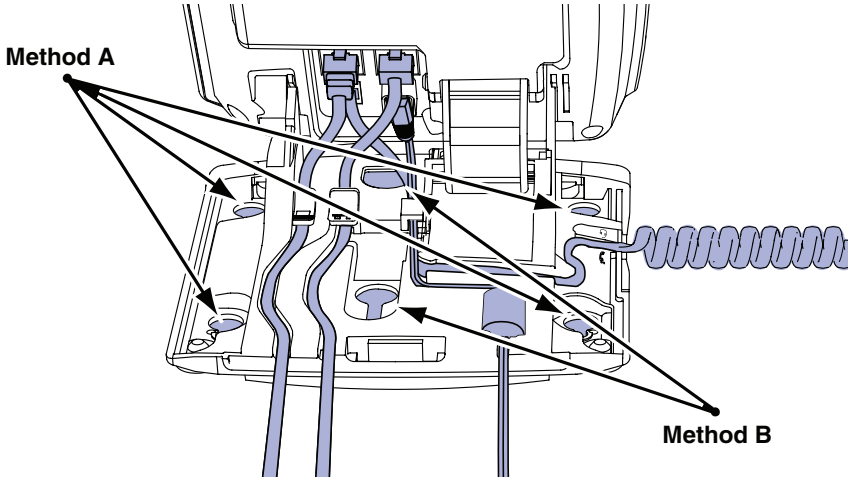


3. **Install the handset.** Plug the end of the handset cord with the short straight section into the handset. Plug the end of the handset cord with the long straight section into the handset jack on the back of the phone (see **Figure 5**) marked with the symbol . Form a small bend in the cord, and then thread it through the channel in the stand base marked with the symbol so that it exits in the handset cord channel on the right-hand side of the stand base (see **Figure 4**).

4. **Install the LAN Ethernet cable.** Plug one end of the supplied LAN Ethernet cable into the LAN ethernet port on the back of your phone (see **Figure 5**) marked with the symbol and thread the cable through the channel in the stand base marked with the symbol . Connect the other end of the cable to your LAN Ethernet connection.

5. **Install the PC Ethernet cable (optional).** If you are connecting your PC Ethernet through the phone, plug one end of the PC Ethernet cable (not supplied) into the PC ethernet port on the back of your phone (see **Figure 5**) marked with the symbol and thread the cable through the channel in the stand base marked with the symbol . Plug the other end of the cable into the LAN port on the back of your PC.

Figure 6: Cable routing tracks and mounting holes



6. **Wall-mount your phone (optional).** Your IP Phone 1110 can be mounted either by: (Method A) using the mounting holes on the bottom of the phone stand, or (Method B) using a traditional-style wall-mount box with an RJ-45 connector and a 15-cm (6-inch) RJ-45 cord (not supplied).

   Complete steps 1-5, as needed, before you wall-mount your phone:

   Method A: Using the stand cover (part removed in step 1), mark the wall-mount holes by pressing the bottom of the stand cover firmly against the wall in the location where you wish to install the phone. Four small pins on the bottom of the stand cover make marks on the wall. Use the marks as a guideline for installing the wall-mount screws (not supplied). Install the screws so that they protrude 3 mm (1/8 inch) from the wall, and then position the phone stand mounting holes (as shown in Figure 6, Method A) over the screw heads. You may need to remove the phone from the wall to adjust the lower screws. When the lower screws fit snugly, tighten the top screws.

   Method B: Attach the 15-cm (6-inch) CAT5e cable (not supplied), position the phone stand mounting holes (shown in **Figure 6**, Method B) over the mounting rivets, push the phone onto the mounting rivets and down, to lock the phone into position.

7. **Replace the stand cover.** Ensure that all cables are neatly routed and press the stand cover into place until you hear an audible click.

8. **Put the phone in the wall-mount position.** If you wall-mounted your phone, put it in the wall-mount position by pressing the Tilt Lever and pushing the phone towards the stand until the phone is nearly parallel with the stand. Release the Tilt Lever and continue to gently push the phone towards the stand until you hear an audible click (from the Wall-Mount lever). Ensure the phone is securely locked in position.

Telephone features

Your IP Phone 1110 has both server-based telephone features and local (telephone-based) tools. Server-based telephone features are accessed through the **Telephone Options** menu item on the **Services** menu. Press the **Services** key once to access the **Services** menu, which has the following menu items:

- **Telephone Options**
  - — enables you or your system administrator to select and configure server-based telephone features. For more information, see **Telephone Options** below.
- **Password Admin**
  - — enables you or your system administrator to manage the Station Control Password (SCPW). For more information, see **Station Control Password** on page 94.
- **Virtual Office Login** and **Test Local Mode** (for Branch Office)
  - — are present only when your phone's Class of Service is configured for Virtual Office and Branch Office. For more information, see "Using Virtual Office" on page 78.

Note: The **Password Admin**, **Virtual Office Login**, and **Test Local Mode** menus are not available on all IP Phone 1110 telephones. Consult your system administrator.

Telephone Options

The **Telephone Options** menu item provides you with access to the following features on your IP Phone 1110:

- "Volume adjustment..." on page 25
- "Contrast adjustment" on page 26
- "Language..." on page 27
- "Date/Time..." on page 28
- "Local Dialpad Tone" on page 28

- “Set Info” on page 29
- “Diagnostics” on page 30
- “Ring type...” on page 31
- “Call timer” on page 32
- “Live Dial Pad” on page 32

When an option has a submenu, an ellipses (...) appears after the option.

Using the Telephone Options menu:

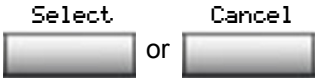
1. Press the **Services** key.

2. Press the **Up/Down** navigation keys to scroll and locate **Telephone Options**.

3. Press the **Enter** key.

1. Use the **Up/Down** navigation keys to scroll and locate an option (for example, **Contrast adjustment**).

2. Press the **Enter** key. The display provides information required to adjust your selection.



3. Choose one of the following:
   - Press the **Select** **context-sensitive** soft key to save any changes and return to the **Telephone Options** menu.
   - Press the **Cancel** context-sensitive soft key to keep existing setting and return to the **Telephone Options** menu.

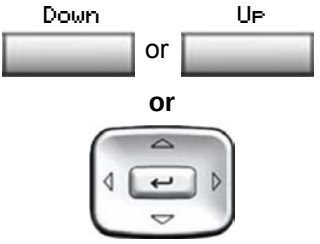
Volume adjustment...

To adjust the volume, press the **Services** key, select **Telephone Options**, and then select **Volume adjustment...**

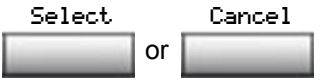
Adjusting the volume:

1. Press the **Up/Down** navigation keys to scroll and locate one of the following items:
   - **Ringer**
   - **Handset listen**
   - **On-Hook listening/dialing**

2. Press the **Enter** key.



3. To increase or decrease the volume, do one of the following:
   - — Press the **Up** or **Down** context-sensitive soft keys.
   - — Press the **Up** or **Down** navigation keys.

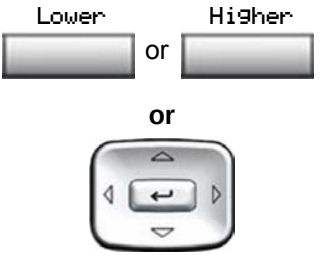


4. Choose one of the following:
   - — Press the **Select** context-sensitive soft key to save the volume level and return to the **Telephone Options** menu.
   - — Press the **Cancel** context-sensitive soft key to keep existing configurations.

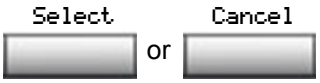
Contrast adjustment

To adjust the LCD display screen contrast, press the **Services** key, select **Telephone Options**, and then select **Contrast adjustment**.

Adjusting the display screen contrast:



1. To increase or decrease the display contrast level, choose one of the following:
   - — Press the **Lower** or **Higher** context-sensitive soft keys.
   - — Press the **Up/Down** navigation keys.



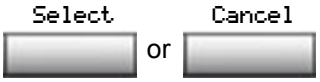
2. Choose one of the following:
   - — Press the **Select** context-sensitive soft key to save the contrast level and return to the **Telephone Options** menu.
   - — Press the **Cancel** context-sensitive soft key to keep existing configurations.

Language...

The LCD display is available in multiple languages. To choose a language, press the **Services** key, select **Telephone Options**, and select **Language...**

Selecting a language:

1. Press the **Up/Down** navigation keys to scroll and highlight the desired language (for example, German [Deutsche]).



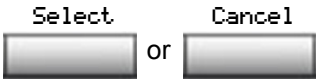
2. Choose one of the following:
   - — Press the **Select** context-sensitive soft key to save the language and return to the **Telephone Options** menu.
   - — Press the **Cancel** context-sensitive soft key to keep existing configurations.

Date/Time...

Several date and time formats are available. Formats are based on the 12-hour and 24-hour clocks. To select the date and time format, press the **Services** key, select **Telephone Options**, and select **Date/Time...**

Selecting a date and time format:

1. Press the **Up/Down** navigation keys to scroll and highlight the desired format. Sample formats appear on the upper-right side of the display area.



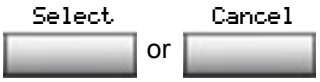
2. Choose one of the following:
   - Press the **Select** context-sensitive soft key to save the format and return to the **Telephone Options** menu.
   - Press the **Cancel** context-sensitive soft key to keep existing configurations.

Local Dialpad Tone

The Local DialPad Tone option produces Dual-Tone Multi-Frequency (DTMF) sounds, a single tone, or no sound when you press a key on the dialpad. To choose a local dialpad tone, press the **Services** key, select **Telephone Options**, and select **Local DialPad Tone**.

Choosing a local dialpad tone:

1. Press the **Up/Down** navigation keys to highlight one of the following dialpad tones:
   - — **None** to disable all tones
   - — **Short Click** to enable a single tone for all keys
   - — **DTMF** to turn on a separate DTMF tone for each key



2. Choose one of the following:
   - — Press the **Select** context-sensitive soft key to save the tone selection and return to the **Telephone Options** menu.
   - — Press the **Cancel** context-sensitive soft key to keep existing configurations.

Set Info

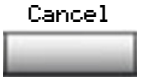
The Set Info option displays the following telephone-specific information:

- General Info
- Set IP Info
- Ethernet Info
- Server Info
- Location Info
- Encryption Info

To view telephone-specific information, press the **Services** key, select **Telephone Options**, and select **Set Info**.

Viewing telephone-specific information:

1. Press the **Up/Down** navigation keys to scroll through the list to view the telephone information.



2. Press the **Cancel** context-sensitive soft key to return to the **Telephone Options** menu.

Diagnostics

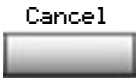
The Diagnostics option displays the following telephone-specific information:

- Diag Tools (Ping, do Route Traces)
- EtherStats (Speed, Auto Neg, CRC Errors, Collision)
- IP Stats (Packet Info)
- RUDP Stats (Msg receive/trans)
- QOS Stats

To view diagnostic information, press the **Services** key, select **Telephone Options**, and select **Diagnostics**.

Viewing telephone-specific diagnostic information:

1. Press the **Up/Down** navigation keys to scroll through the list of diagnostic information.



2. Press the **Cancel** context-sensitive soft key to return to the **Telephone Options** menu.

Ring type...

The Ring type… option configures the telephone's ring tone. To choose a ring type, press the **Services** key, select **Telephone Options**, and select **Ring type…**

Choosing a ring type:

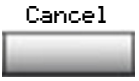
1. Press the **Up/Down** navigation keys to scroll and highlight one of the ring types.

2. Press the **Play** context-sensitive soft key to sample the ring tone.

3. Choose one of the following:

— Press the **Select** context-sensitive soft key to save the ring type and return to the **Telephone Options** menu.

— Press the **Stop** context-sensitive soft key and use the **Up/Down** navigation keys to select a different ring type.

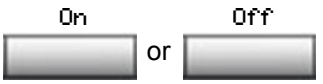


— Press the **Cancel** context-sensitive soft key to keep existing configurations.

Call timer

The call timer measures how long you are on each call. To enable Call timer, press the **Services** key, select **Telephone Options**, and select **Call timer**.

Enabling or disabling Call Timer:



1. Choose one of the following:
   - To turn on the call timer, press the **On** context-sensitive soft key.
   - To turn off the call timer, press the **Off** context-sensitive soft key.

2. Choose one of the following:
   - Press the **Select** context-sensitive soft key to save the configuration and return to the **Telephone Options** menu.
   - Press the **Cancel** context-sensitive soft key to keep existing configurations.

Live Dial Pad

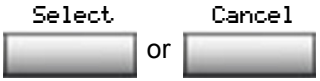
Use Live Dialpad to dial a number using the telephone keypad without having to pick up the handset, press the Handsfree key, or press the Line (DN) key.

Note: Live Dialpad activates the primary DN key.

Configuring Live Dialpad

To configure Live Dialpad, press the **Services** key, select **Telephone Options**, and select **Live Dial Pad**

1. Press the **Up/Down** navigation keys to scroll and highlight one of the following:
   - — **On**
   - — **Off**



2. Choose one of the following:
   - — Press the **Select** soft key to save the configuration.
   - — Press the **Cancel** soft key to keep existing configurations.

Local tools

Your IP Phone 1110 has both local and server-based telephone tools and features. This section discusses the various tools and features available locally on your IP Phone 1110. Many of the tools and features discussed in this section are for administrator use only. Do not make any changes unless instructed by an administrator.

Local tools and features are accessed through the **Local tools** menu. Press the **Services** key twice to access this menu. Your system administrator can establish a password for the **Local tools** menu. When the password is enabled, a password prompt appears when you attempt to access this menu. If this happens, contact your system administrator.

The **Local tools** menu has the following menu options:

- 1. Preferences (p. 35)
- 2. Local Diagnostics (p. 38)
- 3. Network Configuration (p. 39)
- 4. Lock Menu (p. 40)

Local tools menu options are preceded by numbers. Pressing the associated number key on the dialpad triggers the corresponding feature or tool. For example, when you are in the **Local tools** menu, you can select the **Local Diagnostics** menu option by pressing the 2 key on the dialpad.

The functions of some navigation keys on your IP Phone 1110 vary depending on the situation. The navigation controls for menus are described in **Table 1**

Table 1: Navigation controls for menus (Part 1 of 2)

Key	Function
Down arrow keys	Dislay next menu item.
Up arrow keys	Display previous menu item.
Left arrow key	Close the menu.

Table 1: Navigation controls for menus (Part 2 of 2)

Key	Function
Right arrow key	Select the current menu item.
Enter key	Select the current menu item.
Enter digit on the dialpad	Select correspondingly numbered menu item.
Cancel context-sensitive soft key	Exit the Local tools menu option or feature/tool.

When you are working in Edit mode, the first field of the item is highlighted and a blinking cursor is to the right of the current edit position. The navigation controls for Edit mode are described in **Table 2**.

Table 2: Navigation controls for Edit mode

Key	Function
Left arrow key	Delete a character in the edit field.
Enter key	Ends editing function.
Enter digit on the dialpad	Inserts digits at current position
Asterisk (*)	Enters a dot (“.”) at current position.

1. Preferences

When the **Preferences** option is selected from the Local tools menu, a **Preferences** submenu appears. This submenu provides access to tools used for controlling various local display preferences for your IP Phone 1110.

The Preferences submenu provides access to the following tools:

- “1. Contrast” on page 36
- “2. Languages...” on page 36

• “3. Backlight Timer” on page 37

1. Contrast

Use the **Contrast** tool to adjust the contrast of the LCD display screen on your IP Phone 1110.

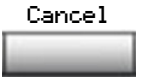
To adjust the contrast of the LCD display screen, press the **Services** key twice to open the **Local tools** menu, press the 1 key on the dialpad to select the **Preferences** menu option, and then press the 1 key on the dialpad to select the **Contrast** tool from the **Preferences** submenu.

> ***Note:*** The initial contrast setting for the LCD display screen is downloaded from the server when your telephone is first configured by your system administrator. Selecting the **Contrast** tool from the **Preferences** submenu in **Local tools** automatically sets the LCD display screen contrast to the telephone’s local contrast setting, even if the **Cancel** context-sensitive soft key is pressed.

Adjusting the LCD display screen contrast:

1. Press the **Up/Down** arrow keys to increase or decrease the value for the display screen contrast.

2. Press the **Enter** key to select the currently displayed value and exits the menu.



3. Press the **Cancel** context-sensitive soft key to exit the menu with no change.

2. Languages...

Use the **Languages...** tool to select the language used locally on your IP Phone 1110.

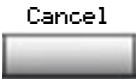
Note: The **Telephone Options** menu is synchronized with the selected language.

To access the local language tool , press the **Services** key twice to open the **Local tools** menu, press the 1 key on the dialpad to select the **Preferences** menu option, and then press the 2 key on the dialpad to select the **Languages...** tool from the **Preferences** menu.

Selecting a local tools language:

1. Press the **Up/Down** navigation keys to scroll and highlight the desired language (for example, German [Deutsche]).

1. Press the **Enter** key to select the desired language and exit the menu.



2. Press the **Cancel** context-sensitive soft key to exit the menu with no change.

3. Backlight Timer

Use the **Backlight Timer** tool to adjust how long the LCD display screen remains lit when your phone is inactive.

To access the **Backlight Timer** tool, press the **Services** key twice to open the **Local tools** menu, press the 3 key on the dialpad to select the **Preferences** menu option, and then press the 1 key on the dialpad to select the **Backlight Timer** tool from the **Preferences** menu.

Note: The backlight timer is displayed in the format xxx, where xxx is a time in minutes or hours.

Adjusting the Backlight Timer:

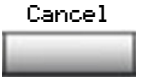
1. Press the **Up/Down** arrow keys to increase or decrease the backlight timer.

   — Available values for the backlight timer are as follows:

   5m (5 minutes)
   15m (15 minutes)
   30m (30 minutes)
   1h (1 hour — default)
   2h (2 hours)
   Never (screen does not go black)

   — Choosing a high backlight timer value or Never, reduces the life span of the display screen.

2. Press the **Enter** key to select the desired backlight timer value and exit the menu.



3. Press the **Cancel** context-sensitive soft key to exit the menu with no change.

2. Local Diagnostics

When the **Local Diagnostics** option is selected from the Local tools menu, a **Local Diagnostics** submenu appears. This submenu provides access to tools used for monitoring and controlling the operation of your IP Phone 1110.

The **Local Diagnostics** submenu provides access to the following tools:

- “1. IP Set&DHCP Information” on page 39

- “2. Network Diagnostic Tools” on page 39
- “3. Ethernet Statistics” on page 39
- “4. IP Network Statistics” on page 39

When in the submenu, press the **Cancel** context sensitive soft key to exit the menu. When a Local Diagnostics tool is selected, use the Return context-sensitive soft key to exit the tool and return to the Local Diagnostics submenu.

Use the **Return** context-sensitive soft key to quickly gather information and run tests. For example, you can check **Ethernet Statistics** (submenu option 3), press the **Return** context-sensitive soft key to return to the **Local Diagnostics** submenu and then select **Network Diagnostics Tools** (submenu option 2) to ping an IP address.

1. IP Set&DHCP Information

The **IP Set&DHCP** tool is used to view reports about IP set and DHCP operation. This tool is for administrator use only.

2. Network Diagnostic Tools

The **Network Diagnostic Tools** menu contains tools that are used to diagnose network problems. This menu is for administrator use only.

3. Ethernet Statistics

The **Ethernet Statistics** tool is used to view reports about Ethernet operation. This tool is for administrator use only.

4. IP Network Statistics

The **IP Networks Statistics** tool is used to view reports about network operation. This tool is for administrator use only.

3. Network Configuration

When the **Network Configuration** option is selected from the **Local tools** menu, network configuration data is displayed for your IP Phone 1110. This tool is for administrator use only.

4. Lock Menu

When the **Lock Menu** option is selected from the **Local tools** menu, a Lock Menu submenu appears. This submenu provides access to tools used for controlling access to the **Local tools** menu itself or various **Local tools** menu options. This tool is for administrator use only.

Call features and Flexible Feature Codes

Some call features are not available on all IP Phones. Call features and Flexible Feature Codes (FFCs) must be assigned to your telephone and supported by system software. Contact your system administrator to assign these features and codes to your IP Phone.

Note: Use table “Flexible Feature Codes (FFC)” on page 97 to record the FFCs that your system administrator assigns to your phone.

Making a call

This section describes features associated with making a call. You can make a call from your IP Phone 1110 using any of the following methods:

- “Using Off-hook dialing” on page 42
- “Using On-hook Dialing” on page 43
- “Using Predial” on page 43
- “Using Ring Again” on page 44
- “Using Last Number Redial” on page 46
- “Using Speed Call” on page 47
- “Using System Speed Call” on page 48

Using Off-hook dialing

1. Lift the handset.

2. Dial the number.

or

(Goodbye)

3. To terminate the call, choose one of the following:
   - — Replace the handset into the cradle.
   - — Press the **Goodbye** key.

Using On-hook Dialing

1. Leave the handset in the cradle.

2. Press the line (DN) key.

3. When the dial tone sounds, dial the number.

4. When the called party answers, lift the handset.

or

(Goodbye)

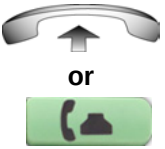
5. To terminate the call, choose one of the following:
   - Replace the handset into the cradle.
   - Press the **Goodbye** key.

Using Predial

Use the Predial feature to enter, preview, and edit numbers before dialing.

To use Predial:

1. Without selecting the line key, enter the number to be dialed.

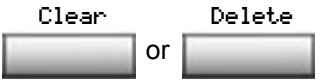


2. Choose one of the following:
   - Lift the handset to dial the number.
   - Press the line key (DN) to dial the number.

3. If the Line key is used to dial the number, lift the handset when the called party answers.

To edit a Predial number:

1. Use the dialpad to enter the number.



2. Choose one of the following:
   - To erase all numbers, press the **Clear** context-sensitive soft key. Reenter the numbers to be dialed.
   - To change one number at a time, press the **Delete** context-sensitive soft key to backspace. Re-enter the number.

3. Press the line key to dial the number.

Using Ring Again

Use the Ring Again feature if you receive a busy tone or if there is no answer. Your IP Phone rings when the person you called becomes available. Ring Again automatically redials the number.

To activate Ring Again:

1. Dial a number and receive a busy tone or no answer.

or

2. Choose one of the following:
   - Press the **Ring Again** context-sensitive soft key.
   - Enter the **Ring Again Activate** FFC.

To call a Ring Again party when you receive notification:

1. After receiving the notification ring, lift the handset.

2. Press the **Ring Again** context-sensitive soft key to automatically dial the number.

To deactivate Ring Again before notification:

or

Choose one of the following:

- Press the **Ring Again** context-sensitive soft key a second time.
- Enter the **Ring Again Deactivate** FFC.

Using Last Number Redial

Use the Last Number Redial feature to automatically redial the last dialed number.

To use Last Number Redial:

Choose one of the following:

1. To redial using the handset:
   - Lift the handset.
   - Press the line (DN) key.

2. To redial without lifting the handset, press the line (DN) key twice (the last number dialed is automatically redialed).

Using Speed Call

Use the Speed Call feature to place internal and external calls by dialing a one-, two-, or three-digit code to store, edit, and automatically dial frequently called telephone numbers.

To store a Speed Call number:

1. Press the **Speed Call Controller** context-sensitive soft key. The triangular icon flashes, indicating programming mode.

2. At the prompt:
   - Enter a one-, two-, or three-digit code (0-999).
   - If required, dial the access code.
   - Enter the telephone number (internal, external or long-distance number).

3. Press the **Speed Call Controller** context-sensitive soft key again to save the code and number. The flashing icon turns off.

To make a Speed Call:

1. Lift the handset.

2. Press the **Speed Call Controller** context-sensitive soft key.

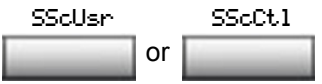
3. Dial the **Speed Call** code to automatically dial the number.

Using System Speed Call

Use the System Speed Call feature to dial Speed Call codes that override dialing restrictions placed on your telephone.

To make a System Speed Call:

1. Lift the handset.



2. Choose one of the following:
   - Press the **System Speed Call** context-sensitive soft key.
   - Press the **System Speed Call Controller (SScCtl)** key.

3. Dial the **Speed Call** code to automatically dial the number.

Answering a call

Each incoming call causes the telephone to ring and the Message Indicator lamp to flash.

To answer a call:

Lift the handset.

Note: Do not use the Line (DN) key to anwer a call.

While on an active call

This section describes the following features, available during an active call:

- “Placing a call on hold” on page 49
- “Transferring a call” on page 50
- “Using Timed Reminder Recall” on page 51
- “Using Call Park” on page 52
- “Recording a Calling Party Number” on page 54
- “Tracing a malicious call” on page 55

Placing a call on hold

Use the Hold feature to place an active call on hold.

To place a call on hold:

(Hold)

Press the **Hold** key.

To retrieve a call on hold:

Press the line (DN) key.

Transferring a call

Use the Transfer feature to redirect a call to the appropriate person.

To transfer a call to a third party:

1. Press the **Transfer** context-sensitive soft key. The other party is put on hold and a dial tone sounds.

2. Dial the DN to which you are transferring the call.

3. When that number rings or a person answers, press the **Transfer** context-sensitive soft key to connect the calling party.

To return to the original call, if the transfer is incomplete:

If the person called is not available, press the **Line** (DN) key to reconnect to the original call.

Using Timed Reminder Recall

Use the Timed Reminder Recall feature to receive a reminder tone when a transferred call is not answered.

To use Timed Reminder Recall:

1. Press the **Transfer** context-sensitive soft key. The call is put on hold.

2. Dial the number to which you are transferring the call.

or

3. Choose one of the following to start the recall timer:
   - Press the **Transfer** context-sensitive soft key.
   - Replace the handset before the extension answers.

   Note: If the transfer is complete, the recall timer stops.

If the transferred call is not answered, your telephone rings:

1. Lift the handset to reconnect to the original caller.

or

(Goodbye)

2. Choose one of the following:
   - Press the **Transfer** context-sensitive soft key and repeat the transfer.
   - If the transfer is picked up while you are on the line, press the **Goodbye** key to complete the transfer.

Using Call Park

Use the Call Park feature to hold temporarily (park) and retrieve a call from any telephone. Using Call Park does not tie up a line. When configured network-wide, Call Park can be used across networks. A System Park extension can be configured to automatically park most calls.

To park a call on the System Park DN or your own DN:

During an active call, press the **Park** context-sensitive soft key twice.

Note: By default, the call is parked on your DN unless a **System Park DN** is enabled to automatically park calls on the system.

To park a call on a DN other than the System Park DN or your own DN:

1. Press the **Park** context-sensitive soft key.

2. Dial the DN where you want to park the call.

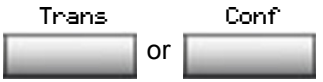
3. Press the **Park** context-sensitive soft key.

To park a call using the SPRE code or FFC:

1. Choose one of the following:
   - Press the **Transfer** context-sensitive soft key.
   - Press the **Conference** context-sensitive soft key.

2. Dial the **Call Park** FFC.

3. To use an alternate DN from the **System Park** DN or your own DN, dial the DN where you want to park the call. Otherwise, proceed to step 4.



4. Choose one of the following:
   - — Press the **Transfer** context-sensitive soft key.
   - — Press the **Conference** context-sensitive soft key.

To retrieve a parked call:

1. Lift the handset.

2. Press the **Park** context-sensitive soft key.

3. Dial the DN where you parked the call.

   Note: If a parked call is not retrieved within a specified period of time, it rings back to your telephone.

Recording a Calling Party Number

Use the Calling Party Number feature to record a caller's number, or to charge a call to an account number, during an established call.

To record a caller's number for accounting purposes:

1. Press the **Call Party** context-sensitive soft key. The caller is placed on hold.

2. Dial a charge account number or the caller's number.

   Note: For information on using the **Charge** key, see "Charging a call or charging a forced call" on page 68.

3. Press the **Call Party** context-sensitive soft key to return to the call.

Tracing a malicious call

Use the Call Trace feature to trace nuisance calls within your system.

Note: This is not a default feature. Contact your system administrator to configure this feature on your telephone.

To activate Call Trace:

1. Choose one of the following:
   - Press the **Transfer** context-sensitive soft key.
   - Press the **Conference** context-sensitive soft key.

2. Dial the **SPRE code** followed by **83** or dial the **Call Trace** FFC to automatically reconnect.

Note: Contact your system administrator for the Call Trace feature SPRE code.

While away from your desk

You can use the following features when you are away from your desk:

- “Using Call Forward” on page 56
- “Using Internal Call Forward” on page 57
- “Using Remote Call Forward” on page 58
- “Securing your telephone” on page 60

Using Call Forward

Use the Call Forward feature to direct incoming calls to ring on another line (DN). If the telephone is ringing, the call cannot be forwarded.

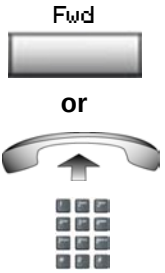
To forward your calls or change the forward number:

1. Choose one of the following:
   - — Press the **Forward** context-sensitive soft key.
   - — Lift the handset and enter the **Call Forward All Calls Activate** FFC.

2. Dial the DN where you want to forward your calls.

3. Press the **Forward** context-sensitive soft key.

To deactivate Call Forward:



Choose one of the following:

- Press the **Forward** context-sensitive soft key.
- Lift the handset and enter the **Call Forward All Calls Deactivate** FFC.

To reinstate Call Forward to the same number:

Press the **Forward** context-sensitive soft key twice.

Using Internal Call Forward

Use Internal Call Forward to accept only calls originating at internal DNs to ring at another DN. Calls originating outside your telephone system still ring at your telephone. Current incoming calls cannot be forwarded.

To forward internal calls:

1. Lift the handset and enter the **Internal Call Forward Activate** FFC.

2. Dial the DN to which you are forwarding your internal calls.

3. Return the handset to the handset cradle.

To deactivate Internal Call Forward:

Lift the handset and enter the **Internal Call Forward Deactivate** FFC.

Using Remote Call Forward

Use the Remote Call Forward feature (from any telephone other than your own) to forward calls to any telephone.

To activate Remote Call Forward:

1. Lift the handset.

2. If you are calling from a telephone outside the system, dial your direct system access number and wait for the dial tone.

3. Dial the **Remote Call Forward Activate** FFC to activate the feature.

4. Dial your **Station Control Password**. A dial tone sounds.

or

5. Choose one of the following:
   - — Dial your DN.
   - — To forward calls to the previous call forward telephone number, press the # key. (Do not perform steps 6 and 7.)

6. Dial the number to which you are forwarding calls. If calls are forwarded to an invalid number, a fast busy signal sounds.

7. Press the # key.

To deactivate Remote Call Forward:

1. Lift the handset.

2. If you are calling from a telephone outside the system, dial the **direct system access** number and wait for the dial tone.

3. Dial the **Remote Call Forward Deactivate** FFC.

4. Dial your **Station Control Password**.

5. After you hear the dial tone, dial your DN.

6. Press the # key.

Securing your telephone

Use the Electronic Lock feature to prevent others from making calls from your telephone. The Electronic Lock feature is controlled using the corresponding Flexible Feature Codes (FFC) and your Station Control Password (SCPW).

To lock your telephone:

1. Lift the handset.

2. Dial the **Electronic Lock Activate** Flexible Feature Code (FFC).

3. Dial your **Station Control Password**.

(Goodbye)

or

4. Choose one of the following:
   - If you are dialing locally, press the **Goodbye** key.
   - If you are dialing the FFC remotely, dial your DN.

To unlock your telephone:

1. Lift the handset.

2. Dial the **Electronic Lock Deactivate** FFC.

3. Dial your **Station Control Password**.

(Goodbye)

or

4. Choose one of the following:
   - If you are dialing locally, press the **Goodbye** key.
   - If you are dialing the FFC remotely, dial your DN.

Talking with more than one person

Use the following features to enable conversations between more than two people:

- “Setting up a conference call” on page 63
- “Using Group Call” on page 64

Setting up a conference call

Use the Conference feature to set up a conference call for a maximum of three or six people including yourself. The maximum number of people the conference feature supports depends on the configuration of your telephone.

To set up a conference call:

1. While on a call, press the **Conference** context-sensitive soft key to place the party on hold. You hear a dial tone.

2. Dial the number of the person you want to add to the conference call. You can talk privately to the person you are adding at this time.

3. Press the **Conference** context-sensitive soft key a second time to conference all parties together.

If the person you attempt to add to the conference is unavailable:

(Goodbye)

1. Press the **Goodbye** key.

2. Press the line (DN) key to return to your original call.

Using Group Call

Use the Group Call feature to automatically call members of a predefined group, one at a time, until all members answer.

To call group members:

1. Lift the handset.

2. Enter the **Group Call FFC**.
   - — The feature automatically calls all group members.
   - — The telephone numbers of the group members appear on the display as they answer.

   Note 1: After everyone in the group has answered, only the person who made the group call can put the call on hold.

   Note 2: When a person in your group is on a conference call or another group call, they are not connected to your group call.

To answer a group call:

1. Lift the handset. Note the following about notification tones:
   - If you are on a call and receive three 10-second tones, this is the notification of a group call on your current extension.
   - If you are on a call on another line when a group call is made, you receive a long tone through the handset or speaker.
   - If you are already on a conference call or another group call, you do not receive notification of a group call.

To end a group call:

(Goodbye)

Press the **Goodbye** key.

Note: When the person who made the group call disconnects, the call terminates for all members of the group. However, the members of the group call can disconnect from the call and not affect other members on the call.

Working without interruption

This section describes the Activating Make Set Busy feature, which provides uninterrupted work time.

> ***Note:*** Uninterrupted work time can also be obtained by forwarding your calls to another telephone number (see Using Call Forward on page 56) or directing your calls to your voice mailbox.

Activating Make Set Busy

Use the Make Set Busy feature to make your telephone appear busy to all callers.

To activate Make Set Busy:

Lift the handset and enter the **Make Set Busy Activate** FFC.

To deactivate Make Set Busy:

Lift the handset and enter the **Make Set Busy Deactivate** FFC.

Additional call features

Contact your system administrator to determine if the following call features are available on your telephone.

- “Using Call Page Connect to make an announcement” on page 67
- “Charging a call or charging a forced call” on page 68
- “Using Enhanced Override” on page 71
- “Using Forced Camp-on” on page 72
- “Overriding a busy signal” on page 74
- “Using Privacy Release” on page 74
- “Using Radio Page” on page 75

Using Call Page Connect to make an announcement

Use the Call Page Connect feature to make an announcement over a paging system.

Note: A **Page** key on an attendant console overrides and disconnects the telephones. The telephones must reaccess the page trunk.

To connect to Call Page:

1. Lift the handset.

2. Dial the **Page Trunk Access Code** to complete the connection to the page system.
3. Make your announcement.

(Goodbye)

4. Press the **Goodbye** key.

Charging a call or charging a forced call

Use the Call Charge feature to charge a call to a specific account. The Forced Charge feature charges long-distance calls from a telephone restricted to local calls.

To charge a local or long-distance call to an account before you dial:

1. Lift the handset.

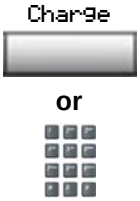
2. Choose one of the following:
   - Press the **Charge** context-sensitive soft key.
   - Dial the **Call Detail Recording** FFC.

3. Dial the charge account number.

4. When the dial tone sounds, dial the number.

To charge a call in progress:

1. Choose one of the following:
   - Press the **Transfer** context-sensitive soft key.
   - Press the **Conference** context-sensitive soft key.



2. Choose one of the following:
   - Press the **Charge** context-sensitive soft key.
   - Dial the **Call Detail Recording** FFC.

3. Dial the charge account number.

4. Press the line (DN) key to return to the call.

To charge a call to an account when you transfer a call:

1. Press the **Transfer** context-sensitive soft key. The call is on hold.

or

2. Choose one of the following:
   - — Press the **Charge** context-sensitive soft key.
   - — Dial the **Call Detail Recording** FFC.

3. Dial the charge account number.

4. After the dial tone, dial the number to which you are transferring the call.

5. Press the **Transfer** context-sensitive soft key when you hear the telephone ring.

   Note: You can talk privately to the person at the transfer number before you press the **Transfer** context-sensitive soft key.

To charge a call to an account when you add someone to a conference call:

1. Press the **Conference** context-sensitive soft key. The call is placed on hold.

or

2. Choose one of the following:
   - — Press the **Charge** context-sensitive soft key.
   - — Dial the **Call Detail Recording** FFC.

3. Dial the charge account number.

4. Dial the number of the person you want to add to the conference.

5. Press the **Conference** context-sensitive soft key.

Using Enhanced Override

Use the Enhanced Override feature to override an active call after you attempt a Forced Camp-on. Use Enhanced Override to make a call or a consultation call, such as placing a call on hold and calling another party.

To use Enhanced Override:

You receive a busy signal after dialing a telephone number.

1. Enter the **Override** FFC to initiate a Forced Camp-on.

   — If either person on the call disconnects at this time, you receive an overflow (fast busy or engaged) signal.

or

2. Enter the **Override** FFC again.

   — The other two people on the call receive an override tone and a conference call is established between the three of you. If anyone disconnects, the other two people remain connected.

(Goodbye)

3. To terminate the call, press the **Goodbye** key.

Using Forced Camp-on

Use the Forced Camp-on feature to automatically ring another telephone (internal or external) immediately after that telephone disconnects from its current call.

To use Forced Camp-on:

You receive a busy signal after dialing a telephone number.

1. Enter the **Override** FFC, to initiate a Forced Camp-on.

   Note: The person you called receives a tone, and you receive a ring signal or a busy signal, depending on the options chosen. You are now camped-on to the number you dialed.

2. Return the handset to the cradle.

   — When the person you called finishes their call, your telephone automatically dials the number and both telephones ring.

Answering a call camped-on to your extension:

When your telephone rings, lift the handset.

Note: You can program your telephone for either Camp-on or Call Waiting, but not both.

Overriding a busy signal

Use the Override feature to override a busy signal and interrupt another call.

To override a busy signal:

You receive a busy signal after dialing a telephone number.

1. Enter the **Override** FFC.
   — The people in the targeted call receive a tone for approximately 1 second. After Override joins you to their call, a short tone repeats every 16 seconds.

(Goodbye)

2. To terminate the call, press the **Goodbye** key.

Using Privacy Release

Use the Privacy Release feature to enable one or more people who share your DN to join a call.

To use Privacy Release in an established state:

Press the **Privacy Release** context-sensitive soft key during a call.

— People can join the call by pressing the shared number (DN) key on their telephone (Multiple Appearance DN feature).

Using Radio Page

Use the Radio Page feature to page a person and stay on the line until they answer. The paged person answers the call after entering a special Page Meet-me code from any telephone.

To use Automatic Preselection (Meet-me page):

1. Lift the handset.

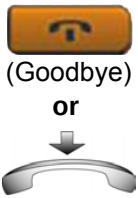
2. Dial the **Radio Paging Access** FFC.

   — The paging tone sounds (two beeps followed by a dial tone).

3. Dial the number of the party you want to page.

   — After dialing, the ringback tone sounds.

   Note: The paged person can use any telephone to enter a **Radio Paging Answer** FFC, plus their own DN number.



4. If your call goes unanswered for a preset time period and a 15-second high-pitched tone sounds followed by silence, press the **Goodbye** key or replace the handset.

To use Automatic Post-selection:

The called party is either busy on the telephone or away from their desk. To page the called party, you do not need to redial the number of the called party.

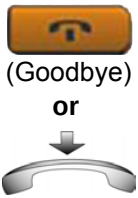
1. Press the **Radio Page** context-sensitive soft key.

   — A special dial tone sounds.

2. Dial the **Radio Paging Access** FFC.

   — The ringback tone sounds.

   Note: The paged person can use any telephone to enter a **Radio Paging Answer** FFC, plus their own DN number.



3. If your call goes unanswered for a preset time period and a 15-second high-pitched tone sounds, followed by silence, press the **Goodbye** key or replace the handset.

To answer a Radio Page:

If you carry a Radio Pager, a page indicates that someone dialed your DN. If the Radio Page system is configured to function in Meet-me mode, you can answer the page call from any telephone.

1. Lift the handset.

2. Dial the **Radio Paging Answer** FFC.
   — The paging tone sounds.

3. Dial your own DN to connect to the paging caller. If the caller has disconnected, a steady high-pitched (number unavailable) tone sounds.

Additional phone features

The following features are described in this section:

- Secure Communication (p. 78)
- Using Virtual Office (p. 78)
- Using Media Gateway 1000B (p. 88)

Secure Communication

Your IP Phone 1110 supports secure communication with other Nortel IP Phones by encrypting your calls using a Pre-Shared Key (PSK). If the PSK feature is enabled on both Nortel IP Phones, a PSK security icon ( ) is displayed on the LCD screen when a secure communication link is established. Consult your system administrator to find out if this feature is enabled on your IP Phone.

Using Virtual Office

The Virtual Office feature provides a service you can use while you are away from your desk to transfer calls, and all your office telephone features, to a remote telephone. Virtual Office makes this possible by allowing you to use another IP Phone (the Remote phone) to log in to your own home or office IP Phone (the Office phone). After you log in, you can access the DNs, key layout, and voicemail features that are configured on your own home or office IP Phone.

To use Virtual Office, you need your DN and preconfigured Station Control Password (SCPW). You must activate Virtual Office on your Office phone before you can connect to it from a Remote phone. See “Logging in to Virtual Office” on page 79.

> ***Note:*** Consult your system administrator to verify if the Virtual Office feature is available for your use.

You can use an IP Phone as a Remote phone to connect to your IP Phone 1110 even if it is a different IP Phone model. Table 3 shows the IP Phones on which you can use Virtual Office to connect to your IP Phone 1110.

Table 3: Virtual Office connection availability

IP Phone model	Possible to log in to the 1110?
IP Phone 1110	Yes
IP Phone 1120E	Yes, with restrictions
IP Phone 1140E	Yes, with restrictions
IP Phone 2001	Yes
IP Phone 2002	Yes, with restrictions
IP Phone 2004	Yes, with restrictions
IP Phone 2007	Yes, with restrictions
IP Audio Conference Phone 2033	Yes, with restrictions
IP SoftPhone 2050	Yes, with restrictions

Note 1: When logged into an IP Phone 1110 from another IP Phone using Virtual Office, your IP Phone is limited to the features available on the IP Phone 1110.

Note 2: A Virtual Office login to an IP Phone 1110 from another IP Phone is blocked in certain situations. Consult your system administrator.

Logging in to Virtual Office

To activate Virtual Office on your Office telephone from your Remote telephone:

(Services)

1. Press the **Services** key.

2. Press the **Up/Down** navigation keys to scroll and highlight **Virtual Office Login**.

3. Press the **Enter** key.

4. At the prompt, enter your user ID.

5. Press the **Enter** key.

6. At the prompt, enter the home **Station Control Password (SCPW)**.

   A successful login transfers all the features, time, date, and tones to your Remote telephone from your Office telephone.

   Note 1: If the user ID is not found locally, the message “Locating Remote Server” is displayed.

   Note 2: After three failed login attempts, wait 1 hour before attempting to log in again, or contact your system administrator to reset your password.

   Note 3: Your Virtual Office session expires after a fixed period of time, (determined by your system administrator).

Using Virtual Office on your Remote telephone

Because the display characteristics, including size, vary from one IP Phone model to the next, your Office IP Phone 1110 display is different on each Remote phone. **Figures 7** to **9** show LCD displays of various IP Phones when they are logged on to an IP Phone 1110 using Virtual Office.

Figure 8 shows an IP Phone 1120E logged in as a Remote phone to an IP Phone 1110 Office phone.

Figure 7: IP Phone 1120E logged in to an IP Phone 1110

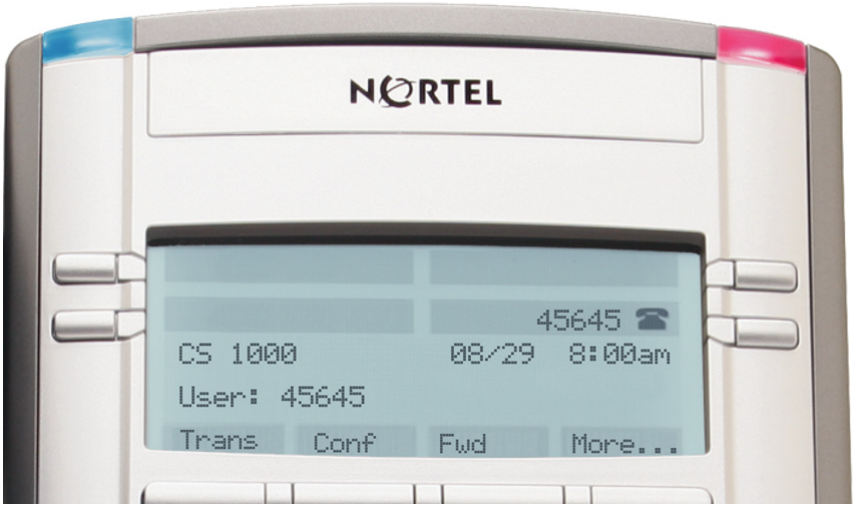
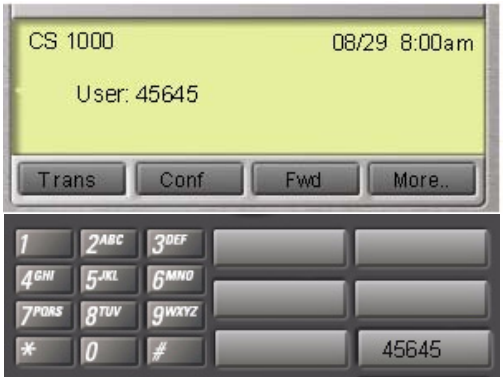


Figure 8 shows an IP Phone 1140E logged in as a Remote phone to an IP Phone 1110 Office phone.

Figure 8: Logged in to an IP Phone 1110 using an IP Phone 1140E

Figure 9 shows an IP Softphone 2050 logged in as a Remote phone to an IP Phone 1110 Office phone.

Figure 9: Logged in to an IP Phone 1110 using an IP Softphone 2050



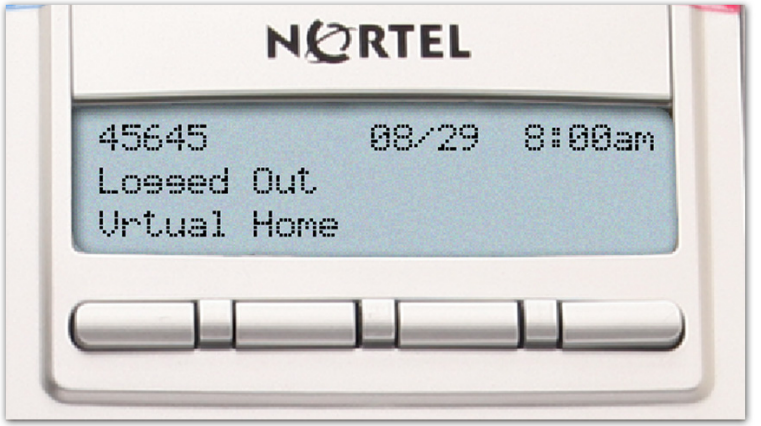
Note 1: On the displays of the IP Phone 2002, IP Phone 2004, IP Phone 1120E, IP Phone 1140E, and IP Softphone 2050, the feature keys remain empty (except for the appearance of your DN), as your IP Phone 1110 does not support feature keys.

Note 2: A User information line appears on all displays listing the number of your office telephone.

Using Virtual Office on your Office telephone

Figure 10 shows the IP Phone 1110 display when the phone is logged out due to remote access.

Figure 10: Office phone displays the message *Logged Out*



When activated for Virtual Office by a Remote telephone, your Office telephone is *logged out* and no longer operational. If this is the case when you return to your office, you can disconnect the remote login and regain control of your Office phone. If you do not disconnect the remote login, your Virtual Office session expires after a fixed period of time, determined by your system administrator.

To regain operation of a telephone being used for Virtual Office:

Choose one of the following:

or

— To completely disconnect your Office telephone from the Remote telephone:

a. Press the **Home** context-sensitive soft key.

b. Enter your User ID and password (this logs the Office telephone back on to your office network).

— Press the **Virtual** context-sensitive soft key to log in to another IP Phone, and your telephone becomes a Remote telephone.

Logging out of Virtual Office

While working on a Remote phone, you can log out of Virtual Office using the following steps.

To log out from a Remote telephone:

(Services)

1. Press the **Services** key.

2. Press the **Up/Down** navigation keys to scroll and highlight **Virtual Office Logout**.

3. Press the **Enter** key.

Troubleshooting Virtual Office

Virtual Office can display error messages on-screen. Table 4 lists error messages and describes actions to correct the causes.

Table 4: Troubleshooting Virtual Office (Part 1 of 3)

Displayed Message	Probable Cause	Actions
Busy, try again	Remote IP Phone is active (not idle).	Wait for remote IP Phone to become idle and try again.
	ACD is logged in.	Log out ACD IP Phone before Virtual Office from another IP Phone.
	Make Set Busy is inactive on ACD IP Phone.	Configure Make Set Busy active on ACD IP Phone.
Invalid ID (1)	Incorrect User ID entered.	Enter correct User ID.
	User ID is not in Gatekeeper database.	Notify system administrator.
Invalid ID (2)	Incorrect User ID entered.	Enter correct User ID.
Invalid ID (3)	Incorrect User ID entered.	Enter correct User ID.
	User ID in Gatekeeper database points to originating Call Server.	Notify system administrator.

Table 4: Troubleshooting Virtual Office (Part 2 of 3)

Displayed Message	Probable Cause	Actions
Locked from Login	Three failed attempts to enter the correct Station Control Password.	Wait one hour for the lock to clear automatically, or notify system administrator to clear lock.
Permission Denied (1)	Remote telephone has no Station Control Password.	Notify system administrator.
Permission Denied (3)	Incorrect User ID entered.	Enter correct User ID.
	Remote telephone has no Station Control Password.	Notify system administrator.
Permission Denied (4)	Incorrect User ID entered.	Enter correct User ID.
	Attempt to log in to a remote IP Phone 2004 or IP Softphone 2050 from an IP Phone 1110 (some restrictions apply).	Go to an IP Phone 2004 or IP Softphone 2050 and try again, or consult your local system administrator.
Permission Denied (5)	Incorrect User ID entered.	Enter correct User ID.
	Remote telephone does not have VOUA Class of Service.	Notify system administrator.

Table 4: Troubleshooting Virtual Office (Part 3 of 3)

Displayed Message	Probable Cause	Actions
Permission Denied (6)	Incorrect User ID entered.	Enter correct User ID.
	Incorrect Station Control Password entered.	Select Retry, and try again with the correct Station Control Password.
Server Unreachable (1)	Network problem.	Notify system administrator if the problem persists.
Server Unreachable (2)	Network problem.	Notify system administrator if the problem persists.

Using Media Gateway 1000B

The Media Gateway 1000B (MG 1000B) provides a means of extending CS 1000 Release 4.5 features to one or more remotely located branch offices using the Branch Office feature. A branch office is a remote location in the network where IP Phones, PSTN access, and TDM telephones are located. Contact your system administrator to see if these functions are available for your use.

The Media Gateway 1000B (MG 1000B) telephone can operate in Normal or Local Mode.

Normal Mode

The telephone registers with the Main Office and receives telephone services from the Main Office. At any time during Normal Mode, you can check Local Mode functionality (make and receive calls) by enabling Local Mode and returning to Normal Mode. After testing, you can return to Normal Mode (see “Using Resume Normal Mode” on page 89) or by waiting for 10 minutes.

Local Mode

If the WAN connection fails, the IP Phone loses communication with the Main Office Telephone Preference Service (TPS). It then registers with the MG 1000B and receives telephone services from the MG 1000B. When in Local Mode, the telephone displays the message *LOCAL MODE*.

This section provides more information on the following topics:

- Using Test Local Mode
- Using Resume Normal Mode
- Troubleshooting MG 1000B

Using Test Local Mode

Use Test Local Mode to check Local Mode functionality (make and receive telephone calls). Test Local Mode is useful when provisioning has changed for an IP Phone on an MG 1000B Controller.

(Services)

1. Press the **Services** key.

2. Press the **Up/Down** navigation keys to scroll and highlight **Test Local Mode**.

3. Press the **Enter** key (the telephone resets and registers back to the Main Office).

Using Resume Normal Mode

Use the Resume Normal Mode command to return to Normal Mode after testing survival functionality.

Note: If you do not use the Resume Normal Mode command after testing, the telephone automatically returns to Normal Mode in 10 minutes.

(Services)

1. Press the **Services** key.

2. Press the **Up/Down** navigation key to scroll and highlight **Resume Normal Mode**.

3. Press the **Enter** key (the telephone registers back to the main office).

Troubleshooting MG 1000B

The MG 1000B can display error messages on-screen. Table 5 lists error messages and describes actions to correct the causes.

Table 5: Troubleshooting MG 1000B (Part 1 of 2)

Display Message	Probable Cause	Actions
Local Mode	Test Local Mode.	Press the **Services** key, and then select Resume Normal Mode.
	Network problem.	Contact system administrator if problem persists.
Local Mode Invalid ID (1)	Gatekeeper unable to find end point from Branch User ID.	Notify system administrator.

Table 5: Troubleshooting MG 1000B (Part 2 of 2)

Display Message	Probable Cause	Actions
Local Mode Invalid ID (2)	Branch User ID not found in any equipped TN.	Notify system administrator.

Using Hospitality features

Hospitality features are intended for hotel operations. The following features are discussed in this section:

- “Configuring Automatic Wake-Up” on page 92

Configuring Automatic Wake-Up

Use the Automatic Wake-Up feature to receive a timed reminder call. From your telephone, you can program the system to automatically place a call to you at a predetermined time. When you answer the call, recorded music plays for up to 30 seconds, followed by a prerecorded announcement or the attendant.

To enter the time for an Automatic Wake-Up call:

1. Lift the handset.

2. Dial the **Automatic Wake-Up Request** FFC.

3. Dial the **Automatic Wake-Up** time in a 24-hour time format (hhmm).

   — A tone sounds to confirm your entered time.

   Note: In a 24-hour time format, 7:30 a.m. is entered as 0730; 9:45 p.m. is entered as 2145.

(Goodbye)

4. Press the **Goodbye** key.

To cancel an Automatic Wake-Up call:

1. Lift the handset.

2. Dial the **Automatic Wake-Up Quit** FFC.

(Goodbye)

3. Press the **Goodbye** key.

To verify the time for the Automatic Wake-Up call:

1. Lift the handset.

2. Dial the **Automatic Wake-Up Verify** FFC.

3. Dial the **Automatic Wake-Up** time in a 24-hour time format (hhmm). If your query matches the preset time, a confirmation tone sounds.

   Note: In a 24-hour time format, 7:30 a.m. is entered as 0730; 9:45 p.m. is 2145.

(Goodbye)

4. Press the **Goodbye** key.

Station Control Password

Some features on your IP Phone 1110 are supported by a Station Control Password (SCPW). The SCPW supports the following telephone features:

- Electronic Lock
  - — to prevent others from making calls from your telephone
- Remote Call Forward
- Virtual Office login
- Branch Office login

Your system administrator defines your initial SCPW. Contact your system administrator for detailed information.

Changing your Station Control Password:

(Services)

1. Press the **Services** key.

2. Press the **Up/Down** navigation keys to scroll and highlight **Password Admin**.

3. Press the **Enter** key.

4. Use the dialpad to enter your password at the prompt.

5. Press the **Up/Down** navigation keys to scroll and highlight **New Password**.

6. Press the **Enter** key.

7. Use the dialpad to enter the new password.

8. Press the **Enter** key to accept the new password.

   Note: If you are locked out of your IP Phone 1110, or if you forget your SCPW, contact your system administrator.

Accessing External Server Applications

Use External Server Applications to access a variety of applications directly from your IP Phone 1110.

To find out what features and services are available, contact your system administrator. Depending on what is available on your system, your phone can provide information; for example, local news and weather, stock market information, or traffic reports.

For more information about the External Server Applications, consult the *Nortel IP Phone External Server Applications User Guide*.

Flexible Feature Codes (FFC)

Use Table 6 to keep track of the FFCs that the system administrator assigns to your IP Phone 1110:

Table 6: Flexible Feature Codes (Part 1 of 2)

FFC	Feature	FFC	Feature
	Automatic Wake-Up Activate		Make Set Busy Activate
	Automatic Wake-Up Deactivate		Make Set Busy Deactivate
	Automatic Wake-Up Verify		Malicious Call Trace
	Call Detail Recording Charge Account		Override
	Call Forward All Calls Activate		Pickup Ringing Number
	Call Forward All Calls Deactivate		Pickup Directory Number
	Call Park		Pickup Group
	Electronic Lock Activate		Radio Paging Access
	Electronic Lock Deactivate		Radio Paging Answer
	Group Call		Remote Call Forward Activate
	Internal Call Forward Activate		Remote Call Forward Deactivate
	Internal Call Forward Deactivate		RingAgain Activate

Table 6: Flexible Feature Codes (Part 2 of 2)

FFC	Feature	FFC	Feature
	RingAgain Deactivate		Virtual Office Terminal Log Off
	Station Control Password Change		Virtual Office Terminal Log On

Regulatory and safety information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

  Note: The user should not make changes or modifications not expressly approved by Nortel Networks. Any such changes could void the user's authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Warnings:

- This is a Class B product. In a domestic environment this product can cause radio interference in which case the user must take adequate measures.
- Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＢ 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
　取扱説明書に従って正しい取り扱いをして下さい。

Table 7 lists EMC compliance for various jurisdictions.

Table 7: EMC Compliance

Jurisdiction	Standard	Description
United States	FCC CFR 47 Part 15	Class B Emissions: FCC Rules for Radio Frequency Devices
Canada	ICES-003	Class B Emissions: Interference-Causing Equipment Standard: Digital Apparatus
Australia/New Zealand	AS/NZS 3548 CISPR 22	Class B Emissions: Information technology equipment - Radio disturbance
European Community	EN 55022	Class B Emissions: Information technology equipment - Radio disturbance
	EN 55024	Information technology equipment - Immunity characteristics Limits and methods of measurement
	EN 61000-3-2	Limits for harmonic current emissions (equipment input current <= 16 A per phase)
	EN 61000-3-3	Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current <= 16 A
Japan	VCCI	Regulations for voluntary control measures.

Table 8: Safety

Jurisdiction	Standard	Description
United States	UL 60950-1	Safety of Information Technology Equipment
Canada	CSA 60950-1-03	Safety of Information Technology Equipment
European Community	EN 60950-1	ITE equipment - Safety - Part 1: General requirements
Australia/New Zealand	AS/NZS 60950.1:2003	Safety of Information Technology Equipment

Other Safety Approvals: IEC 60950-1: ITE equipment - Safety - Part 1: General requirements

Other

US/Canada: Hearing Aid Compatibility (HAC) as per FCC Part 68

This equipment complies with the CE Marking requirements. CE

Australia: AS/ACIF S004: Voice Frequency Performance Requirements for Customer Equipment

EU Countries: This device complies with the essential requirements and other relevant provisions of Directive 1999/5/EC. A copy of the Declaration may be obtained from http://www.nortel.com/corporate/community/environment/life_cycle/declarations.html or Nortel Networks GmbH address: Ingolstaedter Strasse 14-18, 80807 Munich Germany.

DenAn regulatory notice for Japan

⚠ Warning

Please be careful of the following while installing the equipment:

- Please only use the Connecting cables, power cord, AC adaptors shipped with the equipment or specified by Nortel to be used with the equipment. If you use any other equipment, it may cause “failures, malfunctioning or fire”.
- Power cords shipped with this equipment must not be used with any other equipment. In case the above guidelines are not followed, it may lead to death or severe injury

⚠ 警告

本製品を安全にご使用頂くため、以下のことにご注意ください。

- 接続ケーブル、電源コード、ACアダプタなどの部品は、必ず製品に同梱されております添付品または指定品をご使用ください。添付品・指定品以外の部品をご使用になると故障や動作不良、火災の原因となることがあります。
- 同梱されております付属の電源コードを他の機器には使用しないでください。

上記注意事項を守らないと、死亡や大怪我など人身事故の原因となることがあります。

Terms you should know

Calling Party Name Display

Information appearing on the LCD display screen, such as the caller's name and telephone number. The system must have CPND enabled.

Category 5 (Cat5)

Cable and associated connecting hardware capable of transmitting at speeds up to 100 MHz, used by 10BaseT, 100BaseT4, 100BaseTX.

Category 5e (Cat5e)

Most Cat5 cable manufactured after 1996 also supports 1000BaseT (GigE) installations, and is designated Cat 5e. Cat5e cable normally has four pairs of copper wire.

Category 6 (Cat6)

Cable and associated connecting hardware capable of transmitting at speeds up to 200 MHz. Designed specifically to support 1000BaseT (Gig Ethernet (GigE)), it is also compatible with 10BaseT, 100BaseT4, and 100BaseTX installations. The cable normally has four pairs of copper wire.

Communication Server 1000

Your office communication system.

Date/time display

The current date and time when the telephone is in an idle state.

Directory Number (DN)

A number consisting of one to seven digits for a telephone, and also known as an *extension number*.

Feature display

An area that shows status information about the feature in use. It also displays the name and status of the active session.

Feature Status Lamp indicator

An LCD or an LED that indicates a data message, contact, or feature status by a flash, wink, steady on, or off.

Fixed key

The hard-labeled keys on your telephone.

Flexible Feature Codes (FFC)

Specialized codes entered using the dialpad that enable features (for example, Ring Again).

Goodbye key

A fixed key used to end an active call.

Indicator

An LCD or an LED that indicates the status of a feature by the flash, wink, steady on, or off.

Information display

Any display of call activity, lists, prompts, and status of calls. On your IP Phone 1120E, this information area is one line of text and symbols. If a text message exceeds this area, a scroll arrow icon indicates that you must use the scroll keys to view the remaining text.

Information line

A one-line by 24-character area that displays date and time or application information.

Interrupted dial tone

A broken or pulsed dial tone that sounds when you access some features on your telephone.

Message/Inbox

A fixed key on your IP Phone 1120E that connects to your voice messaging system when the key is pressed.

Navigation keys

Keys used to scroll through menus and lists appearing on the LCD display screen.

Off-hook

Any line selected to make a call or receive an incoming call. The term *off-hook* is applied when (a) the end-user lifts up the handset, (b) the end-user presses a line key, (c) the call is automatically answered at the telephone, or (d) a line is automatically selected for an outgoing call.

Paging tone

A special tone (two beeps followed by dial tone) that sounds when you use the Radio Paging feature.

Ringback/ring tone

A sound indicating that a call you have made is ringing at its destination.

Services key

A fixed key used to access options such as Telephone Options, Password Admin, Virtual Office Login, Virtual Office Logout, Test Local Mode, and Resume Normal Mode.

Shared Directory Number

A DN (extension) that is shared by two or more persons.

Special Prefix code (SPRE)

Special codes entered using the dialpad, followed by a two-digit access code, that enable features (for example, Call Forward All Calls requires entry of SPRE code + 74).

Soft keys

A set of keys programmed by your system administrator. These four keys, located directly below the display area, have four programmable layers. These keys are also used to configure parameters in the **Telephone Options** menu.

Special dial tone

The three consecutive tones followed by dial tone that you hear when accessing telephone features.

Station Control Password (SCPW)

Enables security features on your phone to prevent others from making calls from your telephone and to prevent access to protected features (for example, Remote Call Forward).

Status Messages

A message displayed to inform the user of important information. A right arrow appears if more than one Status Message is present. Examples of Status Messages include: Message Waiting, All Lines Forwarded to: 6453, Do Not Disturb On, Ring Again active, and Ringer is OFF.

System or Switch

Your office communication system.

Switchhook

A button on which the handset presses down, disconnecting your call when you replace the handset. The handset (when lifted) releases the switchhook, and you either answer an incoming call or you receive a dial tone to make a call.

User interface

Screen displays that interact with the end user as a result of an action or event.

Visual Alerter/Message Waiting indicator

An LCD or an LED that flashes to indicate that a message is waiting or when the ringer is on.

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IP Phone 1110

User Guide

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